```
┌─────────────────────────────────────────────────────────┐
│        This Raw Listing contains the General            │
│        Information Section and those Sequences          │
│        containing ERRORS.                               │
└─────────────────────────────────────────────────────────┘
```

1	<110>	BIOCHEM PHARMA INC.
2		HAMEL, Jose
3		BRODEUR, Bernard R.
4		PINEAU, Isabelle
5		MARTIN, Denis
6		RIOUX, Clment
7		CHARLAND, Nathalie
8	<120>	NOVEL STREPTOCOCCUS ANTIGENS
9	<130>	12806-11PCT
10	<150>	US 60/113,800
11	<151>	1998-12-23
12	<160>	102
13	<170>	FastSEQ for Windows Version 3.0

Does Not Comply
Corrected Diskette Needed

ERRORED SEQUENCES FOLLOW

E-->	14	<210> 102
	15	<211> 821
	16	<212> PRT
	17	<213> S. pneumoniae
	18	<400> 102

```
 19        Cys Ala Tyr Glu Leu Gly Leu His Gln Ala Gln Thr Val Lys Glu Asn
 20         1               5                  10                  15
 21        Asn Arg Val Ser Tyr Ile Asp Gly Lys Gln Ala Thr Gln Lys Thr Glu
 22                     20                  25                  30
 23        Asn Leu Thr Pro Asp Glu Val Ser Lys Arg Glu Gly Ile Asn Ala Glu
 24                     35                  40                  45
 25        Gln Ile Val Ile Lys Ile Thr Asp Gln Gly Tyr Val Thr Ser His Gly
 26             50                  55                  60
 27        Asp His Tyr His Tyr Tyr Asn Gly Lys Val Pro Tyr Asp Ala Ile Ile
 28         65                  70                  75                  80
 29        Ser Glu Glu Leu Leu Met Lys Asp Pro Asn Tyr Gln Leu Lys Asp Ser
 30                         85                  90                  95
 31        Asp Ile Val Asn Glu Ile Lys Gly Gly Tyr Val Ile Lys Val Asn Gly
 32                     100                 105                 110
 33        Lys Tyr Tyr Val Tyr Leu Lys Asp Ala Ala His Ala Asp Asn Val Arg
 34                     115                 120                 125
 35        Thr Lys Glu Glu Ile Asn Arg Gln Lys Gln Glu His Ser Gln His Arg
 36                     130                 135                 140
 37        Glu Gly Gly Thr Ser Ala Asn Asp Gly Ala Val Ala Phe Ala Arg Ser
 38         145                 150                 155                 160
 39        Gln Gly Arg Tyr Thr Thr Asp Asp Gly Tyr Ile Phe Asn Ala Ser Asp
```

```
40                      165                 170                 175
41     Ile Ile Glu Asp Thr Gly Asp Ala Tyr Ile Val Pro His Gly Asp His
42               180                 185                 190
43     Tyr His Tyr Ile Pro Lys Asn Glu Leu Ser Ala Ser Glu Leu Ala Ala
44               195                 200                 205
45     Ala Glu Ala Phe Leu Ser Gly Arg Glu Asn Leu Ser Asn Leu Arg Thr
46               210                 215                 220
47     Tyr Arg Arg Gln Asn Ser Asp Asn Thr Pro Arg Thr Asn Trp Val Pro
48     225               230                 235                 240
49     Ser Val Ser Asn Pro Gly Thr Thr Asn Thr Asn Thr Ser Asn Asn Ser
50               245                 250                 255
51     Asn Thr Asn Ser Gln Ala Ser Gln Ser Asn Asp Ile Asp Ser Leu Leu
52               260                 265                 270
53     Lys Gln Leu Tyr Lys Leu Pro Leu Ser Gln Arg His Val Glu Ser Asp
54               275                 280                 285
55     Gly Leu Ile Phe Asp Pro Ala Gln Ile Thr Ser Arg Thr Ala Arg Gly
56               290                 295                 300
57     Val Ala Val Pro His Gly Asn His Tyr His Phe Ile Pro Tyr Glu Gln
58     305               310                 315                 320
59     Met Ser Glu Leu Glu Lys Arg Ile Ala Arg Ile Ile Pro Leu Arg Tyr
60               325                 330                 335
61     Arg Ser Asn His Trp Val Pro Asp Ser Arg Pro Glu Glu Pro Ser Pro
62               340                 345                 350
63     Gln Pro Thr Pro Glu Pro Ser Pro Ser Pro Gln Pro Ala Pro Asn Pro
64               355                 360                 365
65     Gln Pro Ala Pro Ser Asn Pro Ile Asp Glu Lys Leu Val Lys Glu Ala
66               370                 375                 380
67     Val Arg Lys Val Gly Asp Gly Tyr Val Phe Glu Glu Asn Gly Val Ser
68     385               390                 395                 400
69     Arg Tyr Ile Pro Ala Lys Asn Leu Ser Ala Glu Thr Ala Ala Gly Ile
70               405                 410                 415
71     Asp Ser Lys Leu Ala Lys Gln Glu Ser Leu Ser His Lys Leu Gly Ala
72               420                 425                 430
73     Lys Lys Thr Asp Leu Pro Ser Ser Asp Arg Glu Phe Tyr Asn Lys Ala
74               435                 440                 445
75     Tyr Asp Leu Leu Ala Arg Ile His Gln Asp Leu Leu Asp Asn Lys Gly
76               450                 455                 460
77     Arg Gln Val Asp Phe Glu Ala Leu Asp Asn Leu Leu Glu Arg Leu Lys
78     465               470                 475                 480
79     Asp Val Ser Ser Asp Lys Val Lys Leu Val Asp Asp Ile Leu Ala Phe
80               485                 490                 495
81     Leu Ala Pro Ile Arg His Pro Glu Arg Leu Gly Lys Pro Asn Ala Gln
82               500                 505                 510
83     Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val Ala Lys Leu Ala Gly Lys
84               515                 520                 525
85     Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp Pro Arg Asp Ile Thr Ser
86               530                 535                 540
87     Asp Glu Gly Asp Ala Tyr Val Thr Pro His Met Thr His Ser His Trp
88     545               550                 555                 560
89     Ile Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln Ala
```

```
 90                            565  ·            570                  575
 91        Tyr Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp
 92                        580                585                590
 93        Ser Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val
 94                        595                600                605
 95        Lys Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln
 96            610                615                620
 97        Tyr Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro His Tyr Asp
 98        625                630                635                640
 99        His Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu
100                            645                650                655
101        Ala Pro Lys Gly Tyr Thr Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr
102                        660                665                670
103        Tyr Val Glu His Pro Asn Glu Arg Pro His Ser Asp Asn Gly Phe Gly
104                        675                680                685
105        Asn Ala Ser Asp His Val Gln Arg Asn Lys Asn Gly Gln Ala Asp Thr
106            690                695                700
107        Asn Gln Thr Glu Lys Pro Ser Glu Glu Lys Pro Gln Thr Glu Lys Pro
108        705                710                715                720
109        Glu Glu Glu Thr Pro Arg Glu Glu Lys Pro Gln Ser Glu Lys Pro Glu
110                        725                730                735
111        Ser Pro Lys Pro Thr Glu Glu Pro Glu Glu Glu Ser Pro Glu Glu Ser
112                        740                745                750
113        Glu Glu Pro Gln Val Glu Thr Glu Lys Val Glu Glu Lys Leu Arg Glu
114                        755                760                765
115        Ala Glu Asp Leu Leu Gly Lys Ile Gln Asp Pro Ile Ile Lys Ser Asn
116            770                775                780
117        Ala Lys Glu Thr Leu Thr Gly Leu Lys Asn Asn Leu Leu Phe Gly Thr
118        785                ·790                795                800
119        Gln Asp Asn Asn Thr Ile Met Ala Glu Ala Glu Lys Leu Leu Ala Leu
120                        805                810                815
121        Leu Lys Glu Ser Lys
122                        820
123        1/120
124        WDC99
125
126        WDC99
127
```

E--> 124
E--> 125
E--> 126
E--> 127

VERIFICATION SUMMARY
PATENT APPLICATION **US/09/471,255**

Input Set: **I471255.RAW**

Line	?	Error/Warning	Original Text
15	E	Input 821, Calc Seq.Length 823 differ	<211> 821
124	E	Invalid/Missing Amino Acid Numbering	
125	E	Wrong Amino Acid Designator	WDC99 401678-2.055190.0012
126	E	Invalid/Missing Amino Acid Numbering	
127	E	Wrong Amino Acid Designator	WDC99 401678-2.055190.0012